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(56) **References Cited**

U.S. PATENT DOCUMENTS

2,863,444	A	12/1958	Winsten	
4,380,999	A	4/1983	Healy	
5,282,806	A	2/1994	Haber et al.	
5,415,160	A	5/1995	Ortiz et al.	
5,449,361	A *	9/1995	Preissman	606/103
5,458,603	A	10/1995	Futch, Sr.	

(Continued)

FOREIGN PATENT DOCUMENTS

CA	2 748 471	7/2010
CN	2244381 Y	11/1996

(Continued)

## OTHER PUBLICATIONS

International Search Report for International Application No. PCT/IB2009/054307 dated Feb. 8, 2010.

(Continued)

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(57) **ABSTRACT**

A system for mini-invasive surgery in a body cavity that is easily positioned and hooked including at least one detachable surgical endoclamp (10), assembled with an introduction guide (20) and at an initially open position; and at a naturally closed position when detached from the introduction guide (20) by a detachment mechanism; the endoclamp (10) comprising a portion of ferromagnetic material; a cylindrically-shaped introduction guide (20) assembled with the detachable surgical endoclamp (10), the introduction guide (20) comprising a mechanism to detach the endoclamp (10); and at least one remote traction component (30) for the endoclamp (10), acting through the application of an electromagnetic field over the ferromagnetic portion of the endoclamp (10).

**18 Claims, 6 Drawing Sheets**

(58) **Field of Classification Search**  
USPC ..... 600/106, 107, 217; 606/99, 86 A, 86 B  
See application file for complete search history.

